SELF-IMPLEMENTING PCB CLEANUP AND DISPOSAL PLAN
FINTECH VILLAGE SOIL AND HARDSCAPES

Fintech Village
1800 Asylum Avenue
West Hartford, Connecticut

Fintech Village, LLC
59th Broadway, 19th Floor
New York, New York

May 1, 2019

EAGLE ENVIRONMENTAL, INC.
8 South Main Street, Suite 3
Terryville, Connecticut 06786

EAGLE Environmental, Inc.

- Industrial Hygiene / IAQ
- Hazardous Building Materials
- Environmental Assessments
- Laboratory Services & Training

May 1, 2019

Ms. Kimberly N. Tisa
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code: SORR07-2
Boston, MA 02109-3912

RE: Self-Implementing PCB Cleanup and Disposal Plan
Fintech Village Soil and Hardscapes
1800 Asylum Avenue
West Hartford, Connecticut
Eagle Project No. 19-071.10T4

Dear Ms. Tisa:

Eagle Environmental, Inc. (Eagle) are submitting this Self-Implementing Cleanup and Disposal Plan (SIP) for PCB-containing soil and hardscapes at Fintech Village located at 1800 Asylum Avenue in West Hartford, Connecticut in accordance with §761(a)(2) and the notification requirement §761.61(a)(3) of USEPA Regulation 40 CFR Part 761.

The objective of this plan is to remove soils, hardscapes, and miscellaneous materials containing greater than one (1) part per million PCB from the site-wide drainage systems and the grounds adjacent to buildings in support of the planned development of Fintech Village. Characterization and remediation of PBC related to the actual buildings, outfalls, and eco-systems will be addressed separately with required notifications.

This SIP proposes the removal and off-site disposal of PCB Remediation Waste in accordance with §761.61(a).

We are looking forward to your review and approval of this Plan.

Sincerely,
Eagle Environmental, Inc.

John Terrill
Senior Environmental Consultant

Peter J. Fólino
Principal

cc: Gary Trombley, CT Department of Environmental Protection
Mr. Alf Poor, Fintech Village LLC

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FINTECH VILLAGE SOIL AND HARDSCAPES
1800 ASYLUM STREET, WEST HARTFORD, CONNECTICUT

This Self-Implementing PCB Cleanup and Disposal Plan (SIP) has been organized into the following sections:

Section 1: Introduction & Background

The Introduction & Background section includes the project introduction, building description, project scope, and project objectives.

Section 2: Site Characterization

The Site Characterization section provides a summary of the sampling performed to delineate the nature and extent of PCB present in soil and hardscapes as required and in accordance with 40 CFR Part 761.61(a)(3)(A-C). The section also includes the nature of the substrate and exterior soil contamination including types of materials, a summary of procedures used to sample the source materials and adjacent porous surfaces, and the location and extent of the identified contaminated areas.

Section 3: Self Implementing Clean-up and Disposal Plan

The Self Implementing Clean-Up and Disposal Plan (SIP) includes a discussion of how the project objectives will be achieved, the remediation approach, clean up levels, monitoring during remediation, and post remediation verification sampling protocol. The Self Implementing Clean-Up and Disposal Plan is submitted in accordance with §761.61(a)(3).

Section 4: Schedule and Certification

The Schedule and Certification section includes the proposed scheduling for implementation of the remediation work and the plan certification signed by the owner of the property and other party's responsibilities for the remediation, clean up, and disposal of scheduled PCB Remediation Waste in accordance with §761.61(a)(3).

SELF-IMPLEMENTING PCB CLEANUP AND DISPOSAL PLAN
FINTECH VILLAGE SOIL AND HARDSCAPES
1800 ASYLUM STREET, WEST HARTFORD, CONNECTICUT

SECTION 1: BACKGROUND, SCOPE, AND OBJECTIVES

1.1 Introduction and Background

The planned Fintech Village located at 1800 Asylum Avenue in West Hartford, Connecticut (herein referred to as the Site) as the University of Connecticut (UCONN) West Hartford Campus

The Site includes five (5) buildings on landscaped grounds. The Undergraduate building, the School of Social Work building, and the Library building (primary buildings) were constructed in the 1960s. The three primary buildings have been vacant since the University ceased academic operations following the summer session of 2017. The grounds and drainage systems associated with the primary buildings are the focus of this SIP.

The site drainage systems consist of several catch basins, trench drains, and conveyance conduit. There are three outfalls into the two on-site retention ponds and one off-site discharge into the storm water system on Lawler Road. Sediments, soils, and porous material associated with the catch basins and storm water conveyance conduit are addresses in this SIP. Water courses and off-site outfalls will be addressed in a separate plan, independent of this SIP.

The Maintenance Building and the IT Building were constructed in the 1990s and are presumed to be free of PCB-containing building products.

The prevalence of PCB in soils and hardscapes surrounding the three primary buildings indicts the widespread use of PCB-containing products in the buildings as the source of the contamination.

Document Review

Several environmental investigations have been conducted at the site. Listed below are those documents that have been provided to Eagle. Information from the following investigations and relevant correspondence was reviewed and considered in the development of this SIP.

1. Recommendations in response to Notice of Scoping, DEEP, August 2014
2. Phase I Environmental Site Assessment, University of Connecticut – Greater Hartford Campus, Milone and McBroom, Inc., February 2016
3. Phase II Environmental Site Assessment, University of Connecticut – West Hartford Campus, Milone and McBroom, Inc., March 2016
4. Soils Evaluation and Mitigation, UCONN Greater Hartford Campus, Fuss & O'Neill, October 2016
5. Supplemental PCB Investigation, UCONN Greater Hartford Campus, Milone & McBroom, Inc., December 2016
6. Notice of Violation, NOVWSPCB017-001, DEEP, February 2017
7. Response to Notice of Violation, NOVWSPCB017-001, UCONN, March 2017
8. Notification of Significant Environmental Hazard, UCONN, March 2017
9. Acknowledgement of Notification of Significant Environmental Hazard, DEEP, March 2017

10. Reply to Response to Notice of Violation NOVWSPCB017-001, DEEP, May 2017
11. PCB Exterior Building Materials Inspection, Undergraduate Building, UCONN – Former West Hartford Campus, Fuss & O'Neill, January 2018
12. PCB Exterior Building Materials Inspection, Social Work Building, UCONN – Former West Hartford Campus, Fuss & O'Neill, January 2018
13. PCB Exterior Building Materials Inspection, Library Building, UCONN – Former West Hartford Campus, Fuss & O'Neill, January 2018
14. PCB Assessment Report UCONN – Library, School of Social Work and Undergraduate Buildings, Former Greater Hartford Campus, Fuss & O'Neill, January 2018
15. Scoping Notice, UCONN Greater Hartford Campus, DEEP, August 2018

Summary of Site Activities

The following narrative presents a general timeline and summary of site activities compiled from information contained within the above referenced documents. The above listed documents were relied upon for accuracy of the information summarized below.

The presence of PCB at the Site was first identified during the summer of 2016 during a due diligence assessment of the Site by Milone & MacBroom, Inc. (MMI) on behalf of the Town of West Hartford. MMI identified PCBs in building materials as a potential concern due to the construction date of the three primary buildings at the campus (1966 to 1969). Two smaller buildings at the campus were constructed after PCB use in building materials had ceased (Facilities Building, 1991 and I.T. Building, 2001). Therefore, these buildings were not assessed for PCB by MMI.

Preliminary Sampling by MMI, August 2016

On August 8 and 9, 2016, MMI collected 11 samples of building materials and seven (7) samples of surface soil around the three primary buildings. The results of the MMI investigation were reported in correspondence to the Town of West Hartford dated August 25, 2016, and the results were provided to UCONN shortly thereafter. The most notable analytical result from the exterior of the buildings was the presence of forty-nine thousand (49,000) mg/kg (ppm) of PCBs in black window caulk on the southern exterior façade of the Undergraduate Building. Most of the other building material samples collected during this initial phase of sampling did not contain detectable concentrations of PCBs or contained PCBs at concentrations below one (1) ppm.

MMI also detected PCBs in the top one and one-half inches of soil around each of the three primary buildings. The highest concentration, two-hundred and ten (210) ppm, was detected at the Social Work Building. In its August 25, 2016 report, MMI indicated that the PCB concentration in this sample and one other sample exceeded the Significant Environmental Hazard (SEH) reporting threshold specified in Section 22a-6u of the Connecticut General Statutes of fifteen (15) times the Residential Direct Exposure Criteria of one (1) ppm (15 ppm). MMI's letter of August 25, 2016 served as its notification to the property owner under the Statute.

Follow-up Sampling and Mitigation

Fuss & O'Neill (F&O) was retained by UCONN in September 2016 to conduct a follow-up assessment of the work that had been initiated by MMI. On September 10, 2016, Fuss & O'Neill took a series of soil samples around the Social Work Building

designed to determine the lateral and vertical extent of PCBs at concentrations above the fifteen (15) ppm SEH reporting threshold.

Interim Soil Mitigation and Building Materials Management Plan

Soils around the Social Work Building that were determined to contain PCB at a concentration above fifteen (15) ppm were excavated from the Site on October 9, 2016. These soils were located in two areas adjacent to the southern and eastern walls of the Social Work Building. A total of twenty-two (22) tons of material was excavated and shipped to U.S. Ecology's TSCA landfill in Belleville, Michigan.

Supplemental Soil Results

On December 13, 2016, UCONN received preliminary soil sampling results from the Town of West Hartford from an expanded soil sampling program that the Town had conducted around all three of the primary buildings at the West Hartford Campus. These data were later included in a report by MMI titled "Supplemental PCB Investigation, December 2016". UCONN notified DEEP and USEPA of this additional data in an e-mail on December 23, 2016 and informed the agencies that the Soil Management Plan (which had been submitted on November 1, 2016) would need to be modified to incorporate the new information from the Town. The revised Soil Management Plan, written by Fuss & O'Neill on behalf of UCONN, was submitted to the DEEP and USEPA on February 2, 2017. Because the second round of soil data collected by MMI contained results that exceeded the SEH reporting threshold, UCONN filed a SEH notification with DEEP on March 10, 2017.

Notice of Violation

On March 4, 2017, UCONN received a Notice of Violation (NOV) from DEEP that was dated February 23, 2017. The NOV required that a compliance statement be submitted within 30 days. UCONN responded to the NOV in correspondence dated March 20, 2017. The response provided a summary of the actions that had been taken to date as well as proposed actions to be implemented and a timeline for those actions. DEEP responded to the UCONN correspondence on May 10, 2017.

Interim Soil Management Report, April 2017

An "Interim Soil Management Report" was submitted to DEEP and USEPA on April 18, 2017. The objective of the sampling described in the report was to determine the lateral extent of PCBs at concentrations exceeding one (1) ppm around the three primary buildings. That objective was largely met through the sampling effort. As had been specified in the plan for the work, soils that were determined (or presumed) to contain PCBs at concentrations above one (1) ppm were covered with a layer of filter fabric and six inches of wood mulch to prevent direct contact with the soils. The mulch application occurred during the week of April 4, 2017.

Implementation of Sampling Plan, October 2017

Representatives from UCONN, the Town of West Hartford, and the DEEP met again on October 17, 2017 to discuss the Proposed Sampling Plan. DEEP provided verbal comments on the plan at that meeting and followed up with written comments on the plan on October 23, 2017. Fuss & O'Neill initiated field work at the Site on October 23, 2017 consistent with the original plan and then followed up with field work to collect additional samples to address data gaps on several occasions between October

23, 2017 and December 5, 2017. A report on the exterior building material samples was submitted on November 30, 2017.

Hazardous Building Materials Inspections

The following existing building materials inspection reports were reviewed to obtain a general understanding of the scope and degree of PCB contamination in the three primary buildings.

- PCB Exterior Building Materials Inspection, Undergraduate Building, UCONN – Former West Hartford Campus, Fuss & O'Neill, January 2018
- PCB Exterior Building Materials Inspection, Social Work Building, UCONN – Former West Hartford Campus, Fuss & O'Neill, January 2018
- PCB Exterior Building Materials Inspection, Library Building, UCONN – Former West Hartford Campus, Fuss & O'Neill, January 2018

Eagle has completed Hazardous Building Materials Inspections for the three (3) primary buildings:

- *Pre-Renovation Hazardous Building Materials Inspection Report, 1800 Asylum Avenue - Undergraduate Building, West Hartford, Connecticut*, Eagle Project No. 18-200.10T5 – issued December 4, 2018.
- *Pre-Demolition Hazardous Building Materials Inspection Report, Social Work Building, 1800 Asylum Avenue, West Hartford, Connecticut*, Eagle Project No. 18-200.10T2 – issued November 27, 2018.
- *Pre-Renovation Hazardous Building Materials Inspection Report, 1800 Asylum Avenue - Library Building, West Hartford, Connecticut*, Eagle Project No. 18-200.10T4 – issued November 27, 2018.

The client has retained Eagle to prepare this Self Implementing Clean-Up and Disposal Plan (SIP) to comply with the United States Department of Environmental Protection (USEPA) requirements for notification of a SIP in accordance with USEPA Regulation 40 CFR §761.61(a).

1.2 Site Description and Project Scope

The general scope of the project includes the demolition of the School of Social Work Building and the "gut rehab" renovation of the Library Building and the Undergraduate Building. The site drainage system will be excavated and replaced.

The building descriptions are presented below.

Undergraduate Building

The Undergraduate building is an approximately sixty-thousand (60,000) square foot, three-story building with a partial basement constructed in 1968. The building is situated on the north side of the lot parallel to Lawler Avenue with the main entrance on the east side of the structure. The lower level of the building contains the mechanical spaces and limited office areas. The first, second and third floors contain academic classrooms and offices.

The main building is rectangular in shape with six equal bays in the east-west direction and three bays in the north-south direction. The second and third floors span to exposed

columns beyond the footprint of the ground floor level to create a covered walkway (plaza) at the perimeter.

At the east end of the building there is a two-story connector and a building mass that is separated from the main building with an expansion joint at the framed levels.

The framing of the main building consists of a two-way, reinforced concrete, waffle slab with concrete encased beams along the column lines within the depth of the slab in each direction. The supporting columns consist of concrete encased steel beams supported by reinforced concrete piers on a caisson foundation.

The structure's building shell appears to be all original with no additions added. Exterior brick veneer has been modified to accommodate new unit ventilator intake louvers and one window at the plaza level has been replaced.

The interior finishes have been renovated including the addition and removal of gypsum board partition walls to accommodate change in usage in that area. The building has an acoustical ceiling system in place or is exposed concrete deck with textured paint. There are numerous acoustical ceiling tiles variations in size and finish. The walls are a combination of concrete masonry units (CMU) and gypsum board. The floors contain carpet, resilient flooring materials including various types of floor tile.

The boiler room is located on the first level of the structure. The building contains a hydronic heating system with fiberglass pipe insulation and mudded pipe fitting cement. There appears to have been some renovation to the original mechanical system. This observation was made based on the presence of different pipe covering jackets identified on mechanical piping.

A combination of wall mounted radiant fin tubing and unit ventilators provide heat to the building.

The first floor the structure consists of poured concrete with window sashes and door frames. The first floor of the east wing is brick with window sashes. The roofs are flat and are covered with either a rubber membrane or modified felts.

School of Social Work

The School of Social Work Building consists of a three -story steel and masonry building with a partial below-grade lower level. The building was constructed in the 1960's and is approximately forty-two thousand (42,000) square feet. The building appears to have undergone multiple interior renovations. The building is situated to the east of Lincoln Avenue with the main entrance through a single-story building appendage on the east side of the structure. The lower level of the building contains the mechanical spaces and limited office areas. The first, second and third floors contain academic classrooms and offices.

The mechanical system consists of two (2) gas-fired Burnham Boilers, which appear to be replacement boilers. The boilers generate hydronic heat which feed radiant fin tube radiators throughout the structure. The boilers are metal jacketed. The piping is insulated with fiberglass on the lateral and vertical pipe runs with a combination of Poly Vinyl Chloride (PVC) and mudpack insulation on the fittings. The fresh air intake consists of an electric fan unit with galvanized duct work that is insulated on the interior of the ducts. The structural steel, wall cavitied, and ceiling deck in the mechanical room contain spray-applied fire proofing.

The interior wall systems are a combination of cinder block, brick and gypsum board. The interior ceiling systems consist of a combination of suspended acoustical ceiling tiles, painted concrete and gypsum. Flooring finishes consist of resilient flooring materials, carpet, painted concrete and ceramic tile. The floor slabs are concrete.

The building exterior is finished with an Exterior Insulation and Finish System (EIFS) over masonry. The exterior facades contain aluminum curtain wall window systems. The roofs are sloped and are covered with an upside-down roofing system where the insulation is spray-applied over the base roof felts.

Library Building

The Library Building is an approximately fifty-four (54,000) square foot, three-story building with a full basement constructed in 1964 with an auditorium at its east end that was added at a later date. The building is situated on the south side of the lot parallel to Asylum Avenue with the main on the south side of the structure. The lower level of the building contains the mechanical spaces and limited office areas. The first, second and third floors contain the library, academic classrooms and offices.

The main building is separated from structure of the auditorium with an expansion joint. The main building is rectangular in shape with fifteen bays of varying lengths in the east-west direction and two bays with variable spans in the north-south direction. The center row of columns down the middle of the structure in the long direction are supported on concrete piers at the basement level and extending to the underside of the third framed level. These columns do not extend beyond the third framed level as there are twenty-eight inches deep open-web steel joists with a pitched top chord that clear span across the width of the building in the short north-south direction at the roof level. The columns at the perimeter of the main building extend from first framed level where they are supported by concrete piers integral with the continuous basement foundation wall to the roof level. The interior columns are supported on individual spread footings while the perimeter columns are supported by individual spread footings cast integral with the continuous footing of the basement foundation walls. The footings bear on a ten-inch layer of sand and gravel over undisturbed soil consisting of clay and silt. The basement slab on grade consists of a five-inch slab and the typical basement wall is twelve inches thick.

The slabs of the framed floors consist of multiple span ‘tube slab’ in the north-south or two bay directions. The ‘tube slab’ is a one-way system consisting of a twelve-inch reinforced concrete slab with hollow steel tubes parallel to the direction of the span which provide both stiffness and reduced weight. The slab is a formed system requiring shoring as it is poured integral with the concrete encasement of the deeper supporting steel girders in the perpendicular direction while there are beams within the depth of the slab along the column lines parallel to the ‘tube slab’ span. In addition to the steel beams along the column lines, the steel columns are also concrete encased.

The structure’s building shell appears to be all original with no additions added. The interior finishes have been renovated including the addition and removal of gypsum board partition walls to accommodate change in usage in that area. The building contains an acoustical ceiling system suspended over a plaster hard lid ceiling. There are numerous acoustical ceiling tiles variations in size and finish. The walls are a combination of concrete masonry units (CMU) and gypsum board. The floors contain carpet, resilient flooring materials including 9”x9” floor tile and 12”x12” floor tile.

The boiler room is located on the first level of the structure and appears to have been recently re- insulated with all new pipe, duct and equipment covering. The boilers

appear to be newly installed with metal jackets and fiberglass insulation. There are also two large mechanical rooms on the first level, one directly adjacent to the boiler room and one centrally located. The building contains a hydronic heating system with fiberglass pipe insulation and mudded pipe fitting cement.

A combination of wall mounted radiant fin tubing and unit ventilators provide heat to the building.

The exterior shell of the structure is brick with aluminum window systems. The roofs are flat and are covered with an asphalt felt membrane.

Storm Water Drainage System

The Site is served by an underground stormwater conveyance system connecting catch basins and trench drains associated with each building. The catch basins associated with each of the primary buildings are served by three independent underground conveyance systems that discharge at four locations. The outfalls are located at the "upper pond", the "lower pond", and a drainage swale. Surface water flows from the upper pond to the lower pond. The lower pond discharges to a drainage swale that flows to the south, ultimately discharging to Trout Brook.

The catch basins around the Undergraduate Building are interconnected and discharge to the upstream pond (OF-3) Catch basins to the east of the Undergraduate Building discharge directly into Trout Brook (OF-4). Drainage from the Social Work Building flows to both the upper pond (OF-3) and the lower pond (OF-2). Drainage from the Library Building flows through conduit eastward to a swale (OF-1).

Concrete, sediments, and polymers associated with the conduit and catch basins will be considered PCB Remediation Waste greater than fifty (50) ppm. If the wastes are characterized upon excavation and found to be of a different disposition, then a "Request for Modification" including sampling results will be submitted to EPA/DEEP prior to disposal of the waste.

The PCB Remediation Plans are included as Diagrams PCB 1.1 through PCB 1.4. The Site Characterization and PCB Remediation Scope of Work Table is included as Table III).

1.3 Project Objectives

This SIP was developed to provide a regulatory frame work for the removal and disposal of PCB Bulk Product Waste and PCB Remediation Waste that will be generated during the clean-up and disposal of soils, hardscapes, and drainage componentsat the Site. PCB Waste disposal is regulated under the Toxic Substances Control Act (TSCA) under 40 CFR section 761 Subpart D.

This SIP includes the provisions for disposal of PCB Remediation Waste described in 40 CFR §761.61(a) and PCB Bulk Product Waste described in §761.62(b)(i).

The remediation work will include the removal and disposal of the regulated PCB materials described in Section 1.2 (Building Descriptions and Project Scope), Table IV (scope of Work and Verification Sampling Summary Table), PCB Remediation Plans Diagram 2 (Sheet Nos PCB 1.1 through PCB 1.4), and in accordance with Section 3 (Remediation Action Plan).

Bulk Product Waste will be disposed of in a non-hazardous solid waste landfill that is permitted, licensed, or registered by a State to manage PCB Bulk Product Waste (and regulated asbestos where applicable) or in a TSCA-approved disposal facility or a RCRA coordinated Hazardous Waste Landfill as applicable. Additionally, PCB Bulk Product Waste may be subject to a TCLP analysis in accordance with 40 CFR §761Subpart R if required by the disposal facility, transporter, owner, or contractor.

Liquid Wastes generated as a result of the PCB remediation shall be burned in a high temperature incinerator in accordance with §761.60 or managed (treated) in accordance with §761.79.

PCB Remediation Wastes greater than or equal to fifty (50) ppm will be landfilled in a facility that is a TSCA-approved disposal facility and/or a RCRA-coordinated Hazardous Waste Landfill.

PCB Remediation Waste less than fifty (50) will be disposed of in a solid waste landfill that is permitted, licensed, or registered by the State to manage Connecticut Regulated PCB Waste.

The remediation of source materials, substrates, and soils will be accomplished to meet the unrestricted use clean-up standard for high-occupancy use as defined in §761.61 (a)(4)(A).

SECTION 2: SITE CHARACTERIZATION

This section provides discussion and a summary of the sampling performed to characterize the nature and extent of PCB present in soils and hardscapes surrounding the primary buildings as the site and drainage systems in accordance with §761.61(a)(2).

The following summary tables are included to present the general scope and degree of exterior PCB-containing building materials that are the source of the soil and hardscape contamination.

UNDERGRADUATE BUILDING			
White Original pliable caulk	Windowsill & Stucco siding	400 LF	5.7-22
	Window sill & black glazed chimney brick		1.9
Grey/white/red paint	Lower elevation north areaway doors	70 SF	1.7-4.3
Black/white/grey paint	East "deliverables here" door	17 SF	18-36
Rubbery red seam caulk	Between metal window frames and stucco	1,400 LF	5-73
	Red colored stucco & window sill		11
Rubbery tan seam caulk	Between stucco and vents, windows, and soffits	3,200 LF	3.5-380
Rubber tan caulk	Between stucco and frames below windows	450 LF	11-140
Black butyl window glazing	Metal frame windows	3,800 SF	0.84-2.1
Weathered light grey caulk	Between aluminum louver and frame, 2nd fl. east	25 LF	0.96-12
Dark brown, rubbery caulk/glaze compound	East elevation, lower level door sidelight	16 LF	ND - 1.3
Black paint on red primer	Metal entrance door frames	210 LF	3.8 - 32
New (2017) black window caulk	Exterior southwest cafeteria windows	32 LF	2 - 17
Grey caulk between frames and concrete	North and south louver and east door frames	34 LF	ND - 1.8
Rust color paint on concrete	Exterior retaining wall	600 SF	1.9 - 3.6
Red/black/white paint on hand rails	Southeast stairs	56 LF	2.2 -4.1
Black on white paint	Lower level east entrance stairs	130 LF	2.2 - 3.7
Black pliable caulk	Louvers	25 LF	13 - 47
Hard grey door caulk	Entrance doors	240 LF	47,000 - 67,000
Brown fibrous expansion joint	Between sidewalk and foundations	1800 LF	4.6 - 59
Dark grey pliable caulk	Horizontal and vertical expansion joints	320 LF	65,000 - 75,000
Tan pliable caulk	Horizontal expansion joints at steel beams	600 LF	41,000 - 68,000
Tan pliable caulk	Columns	900 LF	19,000 - 42,000
Grey pliable window caulk	Windows	4000 LF	18,000 - 28,000
Soft black caulk	Ducts and louvers 2nd	70 LF	7,400 - 23,000

SOCIAL WORK BUILDING			
Grey rubbery caulk	Entrance door thresholds	10 LF	1.9-3.4
White Original pliable caulk	Windowsill & Stucco siding	400 LF	5.7-22
	Window sill & black glazed chimney brick		1.9
Grey/white/red paint	Lower elevation north areaway doors	70 SF	1.7-4.3
Black/white/grey paint	East "deliverables here" door	17 SF	18-36
Rubbery red seam caulk	Between metal window frames and stucco	1,400 LF	5-73
Red colored stucco & window sill	Exterior finishing		11
Rubbery tan seam caulk	Between stucco and vents, windows, and soffits	3,200 LF	3.5-380
Rubber tan caulk	Between stucco and frames below windows	450 LF	11-140
Black butyl window glazing	Metal frame windows	3,800 SF	0.84-2.1
Weathered light grey caulk	Between aluminum louver and frame, 2nd fl. east	25 LF	0.96-12

LIBRARY BUILDING			
Aqua/grey paint	Exterior walls	3750 SF	ND-8.6
Grey paint	Auditorium steel door frames and lintels	110 SF	25-33
Grey paint	North Elevation West/East facing doors	60 SF	1,300-2,100
Black/white/grey paint	On metal handrails	700 LF	950-1,900
Light grey rubbery caulk	Louvers	75 LF	2.1-2.2
Sticky Black/grey caulk	Basement Louvers	36 LF	2.0-2.3
Rubery grey caulk	Aluminum roof base flashing	40 LF	1.2-10
Weathered light grey caulk	Roof at copper base flashing	160 LF	2.5-6.7
Rubbery grey seam caulk	Roof capstones	130 LF	1.3-1.4
Rubbery red caulk	Under roof capstone flashing on parapet wall	85 LF	0.99-2.2
Rubbery light grey caulk	Vertical control joints on brick façade	360 LF	700
Rubbery light grey caulk (on tan remnants)			0.97-2.7
Soft Silver Caulk, Soft Silver Caulk (over old tan remnants	Between aluminum window frames and marble	3200 LF	3,700-28,000
Soft Silver Caulk, Soft Silver Caulk (over old tan remnants	Between aluminum window frames and brick	6500 LF	570
Soft Silver Caulk, Soft Silver Caulk (over old tan remnants	Between aluminum window frames and concrete	1100 LF	36,000-44,000
Rubbery white caulk	Between aluminum window frames and concrete columns	1100 LF	500.00
Rubbery white caulk	Between Concrete and brick façade		980-4,100
Hard white glazing compound	Aluminum windows	9400 LF	18-110
Black butyl glazing compound	North elevation lower loading ramp	72 LF	110-270
Pliable grey caulk	North, lower level boiler room	40 LF	ND (<0.48)-4
Rubbery grey caulk	SW entry door, roof door, NW auditorium door	180 LF	ND (<0.78)-1.8
Old tan brittle caulk	South main entrance door, between concrete columns and aluminum doors	36 LF	2.7-13

2.1 Sample Collection and Analysis

Sampling in the vicinity of building perimeters, where exterior building materials were found to contain PCB, was conducted to determine the extent and degree of contamination to soils, hardscapes, and the Site drainage system.

Data from existing studies was evaluated with additional replicate samples to address mobility and potential anomalies. For continuity the data presentation formats used for the previous reporting was preserved, to the degree practical, for existing and additional data reporting.

Pre-existing soil sample data has been incorporated into Diagram 3 (Soil Sampling Location Diagrams). Pre-existing concrete sampling data has been incorporated into Diagram 4 (Hardscape Sampling Location Diagrams). Pre-existing sediment sampling data has been incorporated into Diagram 6 (Drainage System Sampling Location Diagram).

Pre-existing data for soils has been added to the data tables, Table I (Soils Sampling Summary Tables), Table II (Hardscape Sampling Summary Tables), and Table III (Site Drainage System Sampling Summary Table). Laboratory reports and data quality for pre-existing data was not reviewed by Eagle. Pre-existing data was accepted at "face value" and used as an aid to develop the characterization sampling approach.

2.1.1 Soil Sampling

Eagle utilized a combination of composite sampling and discrete sampling to characterize the Site soil with regards to PCB.

Discrete and composite sampling was conducted at successive vertical and lateral iterations to achieve the criteria objective of less than or equal to one (1) part per million (ppm) PCB. Where the existing data or additional sampling failed the criteria, additional sampling at successive vertical and lateral intervals was conducted.

Soil sampling data was recorded on the field on building-specific site plans, which identified the outline of the building, and general landscaping features such as hardscape, grassy areas and mulch. Each soil sample was plotted on the building-specific site plan. A log of soil sample collection was maintained in a hard bound notebook. The log documented information on sample collection such as time, sample number, features such as sloping and grade and any soil anomalies identified by visual appearance of the soil.

Discrete Soil Sampling

Discrete sampling was performed at successive depth intervals to further delineate vertical extent of contamination, at previously sampled replicate sample sites and other locations deemed practical for the assessment.

Composite Soil Sampling

Composite sampling was generally implemented to explore and define projected "clean" boundaries at the primary (0"-3") depth interval.

For composite soil sample collection, a grid plot consisting of maximum ten (10) foot linear grid intervals was laid out. The sample was collected on a maximum of three (3) co-linear grid points. The method was adopted from the protocols set forth in Subpart N §761.265(a).

For each subsample (aliquot) comprising the composite sample a measured volume of soil was collected from each grid point and placed into a two (2) to eight (8) ounce glass jar. The subsamples were thoroughly mixed to result in a visibly homogenous composite sample. Disposable plastic centrifuge tubes were used to collect equal volumes of soil at each point on the grid that fell within the designated sampling area.

Generally, initial (primary) depth intervals were 0" to 3". Where the primary depth interval failed the criteria objective, successive (secondary, tertiary, quaternary, etc.) intervals were sampled. Successive depth intervals were generally (9" to 12"), (21" to 24"), (33" to 36"), etc.

Delineation of vertical excavation considered practical remediation methods. Generally, where soil remediation is necessary, soil will be excavated to minimum depth of twelve (12) inches and to a minimum five (5) foot breadth.

For composite samples, the laboratory reported PCB concentration for each composited sample was multiplied by the number of aliquots that comprised the composite. to account for potential dilution and calculate the maximum potential PCB concentration (Corrected Result).

Where the Corrected Result for a composite sample exceeded one (1) ppm PCB, Eagle collected discrete samples at points representing the aliquots of the corresponding composited sample. Where the discrete sample result was less than or equal to than one (1) ppm PCB, the area was considered "clean". Where the discrete sample result was greater than one (1) ppm PCB, the limits of contamination were further delineated through further sampling until contamination delineation is accomplished.

2.1.2 Hardscape Sampling

Hard landscape and utilitarian surfaces such as sidewalks walkways, pads, parking areas, etc. are herein referred to as "hardscapes".

Bulk sampling of hardscapes was performed to address contamination distribution pathways and evaluate potential transport of contaminants. Sample distribution considered differing environmental exposures to prevailing weather, sunlight, and proximity to PCB-containing source and substrate materials.

Topography, pedestrian routes, area usage, storm water drainage, and environmental factors were studied to identify locations with the greatest potential for distribution contamination.

2.1.3 SPLP Sampling

PCB mobility screening was conducted to evaluate the potential for PCB in the soils or sediments to impact groundwater. Samples were collected and analyzed using the Synthetic Precipitation Leaching Procedure (SPLP). The evaluation used the pollutant mobility criteria of PCBs (0.5 ug/L). SPLP samples were collected from representative locations that exceeded the DEEP Significant Environmental Hazard reporting criteria.

2.1.4 Drainage System Sampling

Eagle collected twenty (20) discrete sediment samples (CB-1 to CB-22) within catch basins located on the Site to a depth of approximately 0 to 3-inches. CB-2 was inaccessible to assess due to erosion and expansion of the grate and CB-15 was unable to be located therefore no samples were obtained from those catch basins. The sediment sampling mirrored previous sampling conducted by Fuss and O'Neill in October and November of 2017; however, the outfalls were not sampled by Eagle. Eagle will evaluate the outfalls and offsite waterways as a separate task at a later date.

Please refer to Diagram 5, Drainage System Sampling Location Diagram, for the sampling locations.

The discrete sediment samples were placed into glass containers and preserved in accordance with standard methodology. The samples were submitted for analysis to a Connecticut-certified laboratory for Polychlorinated Biphenyls (PCBs) by EPA Method 8082 Soxhlet Extraction.

The project scope of work includes the excavation and replacement of the sitewide drainage systems. Upon excavation, the catch basins, conveyance conduit, and surrounding soils will be stock piled on secured, impervious tarps

adjacent to the excavated trenches. Berms will be formed under the tarps when required to prevent migration of the soils in the event of precipitation.

Excavation will be monitored and evidence of sediments within the conduit and/or leakage at couplings or breaks will be recorded. Visible evidence of potential contamination will be recorded. Where sediments or evidence of potential soil contamination are encountered, samples of soils, sediments, and conduit will be collected and submitted to a Connecticut-certified laboratory for analysis of polychlorinated biphenyls (PCBs) by EPA Method 8082 (Soxhlet Extraction). In the absence of sediments, damaged conduit, or evidence of contamination, conduit and soil underneath conduit will be sampled a frequency of one (1) per forty (40) linear feet. Catch basin concrete floors and soil beneath catch basins will be sampled at a frequency of one (1) per basin. Porous conduit will be bulk sampled. Non-porous conduit will be wipe sampled in conformance with the procedures laid forth in §761.123.

The drainage system outfall areas at the upper and lower ponds, the drainage swale, and Trout Brook are not addressed within this SIP. The outfalls will be a sampled in advance proposed remediation and addressed under a separate task. Samples will be collected at the outfalls at several depth intervals and then in nearby downstream areas that exhibit depositional characteristics to screen for the presence of PCB.

This SIP does not address remediation of sediments at the off-site waterways per §761.61(a)(1)(i)(B). If PCB is detected during the screening sampling of the outfall areas, further evaluation and remediation of those soils/sediments will be conducted as a separate task that will include Connecticut Department of Energy and Environmental Protection and EPA Region 1 coordination.

2.1.5 Sampling Protocols

Sample Preservation

(1) PCB samples were placed in clean, un-used 2 to 4 oz glass jars with teflon-lined, plastic lids.
(2) Samples were stored in portable coolers with ice or ice packs and kept cool while in the field and during transport. Samples will be refrigerated and maintained between one (1) and six (6) degrees Celsius while awaiting shipment to or pick up from the laboratory
(3) All samples were recorded on sample logs and chains of custody provided by the analytical laboratory. All sample logs were filled out completely and the sampler signed the chain of custody relinquishing the samples directly to the laboratory or to the laboratory currier.
(4) Samples were extracted within 14 days of collection. Extracted solutions were analyzed within 40 days of extraction.

Sample Analysis

(1) Samples were extracted using USEPA Method 3540C (Soxhlet Extraction) and analyzed for PCBs using USEPA Method 8082.
(2) Sample analysis was performed by Phoenix Environmental Laboratories, Inc. in Manchester, Connecticut.
(3) Inter-laboratory control samples were analyzed at con-test Analytical Laboratory in East Longmeadow, Massachusetts.

Quality Control Samples

(1) Duplicate sample analysis was performed on a targeted five percent (one per twenty) of the field samples collected. After mixing to homogenize, the duplicate samples will be split from the parent field sample and issued a sample ID identical to the parent sample but suffixed with a "D".
(2) Interlaboratory control sample analysis was performed on a targeted one per batch (group of similar samples collected at a similar location on the same day) of samples. After mixing to homogenize, the inter-laboratory samples will be split from the parent field sample and issued a sample ID identical to the parent sample but suffixed with a "C".
(3) Equipment blanks were collected from re-useable tools used in the collection of the soils (i.e. hand augers, shovels, geo-probes) on a minimum schedule of one per field sampling day. The working surfaces of the tools were cleaned following the decontamination procedures presented below. Distilled water was flushed over the working surfaces of the tools and collected in the amber bottles for laboratory analysis. The sample IDs were "EB" 1, 2, 3, etc.

Soil Sampling Procedure

Soil sampling was performed utilizing manual methods.

Personnel did not directly contact known or potentially contaminated soils without protective measures or decontamination contingencies being employed.. Personnel conducting soil sampling donned disposable shoe covers prior to entering any areas known or presumed to contain contaminated soils. Shoe covers were removed and placed in a designated receptacle labeled with the M_L mark upon exiting the designated area.

Prior to sample collection, the sampler donned disposable nitrile gloves and other PPE as required. Clean disposable centrifuge tubes were used to collect the soil samples at the designated depth. The tubes and gloves were disposed of after each sample collection to avoid cross contamination.

A manual slide-hammer geo-probe was used to collect the samples at depth intervals. The geo-probe incorporated designated single-use acetate liners sleeves that were disposed of after each sample collection. decontaminated Working surfaces of the Geo-Probe were decontaminated with soapy water and hexane in between sampling events as necessary to prevent cross-contamination.

Surface samples were generallycollected using a dedicated disposable centrifuge tube. Grass, roots, stone, and other (relatively) large debris was removed from the sample prior to packing the sample. The geo-probe or other re-usable sampling tools were decontaminated with a soap and water scrub followed by a hexane and distilled water rinse. Washing, rinsing, and drying with a disposable towel was done over a five-gallon bucket. The fluids and solidsgenerated by the decontamination activities were collected in designated receptacles and labeled with the M_L mark for subsequent profiling.

The jars were labeled with a unique sample identifier (ID) in conformance with those that were used for the existing studies. The sample ID conformed to the following format:

Sample ID (typical) UG-C5-#-##

UG=Building ID
C5=Sample location ID
# =Distance from reference point
##=Depth (inches)

Sample jars were protected in sealed plastic bags to preserve the labeling and prevent water or contaminant incursion. Samples were placed into coolers in the field as soon after collection, packaging, and labeling as practical. The sample log and chain of custody were completed.

Hardscape Sampling Procedure

The intent of the hardscape sampling was to determine if PCBs have leached or been transported from PCB-containing source, substrates, or soils onto/into hardscapes.

Eagle conducted the sampling of hardscapes in general conformance with USEPA Region 1 *Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBs) Revision 4, May 5, 2011.*

The working surfaces of sample collection tools were scrubbed with soap and water then decontaminated using hexane prior to and between the successive samplings. Bulk hardscape samples were collected using an electric hammer drill with a one-half (1/2) to seven-eighths (7/8) inch masonry bit to drill holes to a maximum of one-half (1/2) inch deep. A putty knife or scraper blade was used to collect the sample material generated by the drilling from horizontal surfaces. Multiple holes were drilled as required to obtain enough substrate material for analysis. Each sample was transferred to an individual, pre-cleaned, Teflon sealed, labeled glass container, kept chilled, and delivered to or picked up by the laboratory under proper chain of custody. Residual bulk substrate materials were washed from the drill bit with soap and water followed by decontamination using hexane prior to and in between each successive sampling to avoid cross contamination.

Prior to use and between successive sampling events, working surfaces of re-usable sampling tools were decontaminated with a soap and water scrub followed by a hexane and distilled water rinse. The washing, rinsing, and drying with a disposable towel were done over a five-gallon bucket. The fluids and generated by the decontamination activities were collected in designated receptacles and labeled with the M_L mark for subsequent profiling.

Sampling intervals originated as close as practical to the source material. Successive sampling intervals radiated at increasing intervals from the source.

The jars were labeled with a unique sample identifier (ID) in conformance with those that were used for the existing studies. The sample ID conformed to the following format:

Sample ID (typical) UG-HSA#-##

UG=Building ID
HAS#= Hardscape, Façade, sequential sample number
=Distance from reference point

Sample jars were protected in sealed plastic bags to preserve the labeling and prevent water or contaminant incursion. Samples were placed into coolers in the field as soon after collection, packaging, and labeling as practical. The sample log and chain of custody were completed. New nitrile gloves were put on prior to the next sampling incidence.

Sample locations were determined largely by analysis of existing data, topography, pedestrian routes, usage, storm water drainage, and environmental factors to identify surfaces with the greatest potential for distribution contamination.

2.2 Sample Results Summary

2.2.1 Soil and Hardscape Sampling Results Summary

Soil Sampling

Soil sampling data is summarized on the following tables attached as Table I:

- Table IA: Soil Sampling Summary Table School of Undergraduate Building
- Table IB: Soil Sampling Summary Table School of Social Work Building
- Table IC: Soil Sampling Summary Table Library Building

Soil sample locations are presented on the following diagrams included Diagram 3:

- Diagram SS-1: Undergraduate Building, Soil Sampling Locations Diagram
- Diagram SS-2: School of Social Work Building, Soil Sampling Locations Diagram
- Diagram SS-3: Library Building, Soil Sampling Locations Diagram

A second set of soil sample locations are presented with a soil remediation field over-lay to graphically represent the correlation of sampling site to remediation areas. Soil sample locations and the remediation field over-lays are presented on the following diagrams included Diagram 4:

- Diagram SS-1: Undergraduate Building, Soil Sampling Locations Diagram
- Diagram SS-2: School of Social Work Building, Soil Sampling Locations Diagram
- Diagram SS-3: Library Building, Soil Sampling Locations Diagram

Hardscape Sampling

Hardscape sampling data is summarized on the following tables attached as Table II:

- Table IIA: Hardscape Sampling Summary Table School of Undergraduate Building
- Table IIB: Hardscape Sampling Summary Table School of Social Work Building
- Table IIC: Hardscape Sampling Summary Table Library Building

Hardscape sample locations are presented on the following diagrams attached as Diagram 5:

- Sheet No. HS-1: Undergraduate Building, Hardscape Sampling Locations Diagram
- Sheet No. HS-2: School of Social Work Building, Hardscape Sampling Locations Diagram
- Sheet No. HS-3: Library Building, Hardscape Sampling Locations Diagram

Sediment Sampling

Hardscape sampling data is summarized on the following tables attached as Table II:

- Table III: Catch Basin Sampling Summary

Sediment sampling locations are represented on Diagram 6 (Sheet No DS-1, Catch Basin Sediment Sampling Location Diagram).

Photographs

Photographs representing site conditions are included as Diagram 8 (Sheet Nos P-1, P-2, and P-3).

Degradation of PBC-containing source materials, topography, and storm water migration patterns have contaminated surrounding soils and hardscapes as indicated on the following remediation plans included as Diagram 2:

- Sheet No PCB-1: Undergraduate Building, PCB Soil and Hardscape Remediation
- Sheet No PCB-2: School of Social Work Building, PCB Soil and Hardscape Remediation
- Sheet No PCB-3: Library Building, PCB Soil and Hardscape Remediation

Hardscapes within the boundaries inferred by contaminated soil will be remediated to the depth of the adjacent soils.

Remediation of the drainage system is indicated on Sheet No PCB-4 attached as Diagram 2.

Verification Sampling

Completion of remediation of the soils and hardscapes will be verified with post-remediation sampling performed in conformance with CFR 761 Subpart O. The sampling grid will encompass the entirety of the remediation areas. The general approach to the verification sampling is indicated on the following sheets attached as Diagram 7:

- Sheet No VS-1: Undergraduate Building, Verification Sampling Plan
- Sheet No VS-2: School of Social Work Building, Verification Sampling Plan
- Sheet No VS-3: Library Building, Verification Sampling Plan

Verification sampling of the drainage system remediation/excavation will be performed contemporaneously with excavation as described in section 2.1.4 of this SIP.

The project scope of work and a summary of proposed verification sampling frequencies is included as IV: Scope of Work and Verification Sampling Summary Table.

Undergraduate Building

PCB in window, door, column, control joint, expansion board, and louver caulks is the source of the soil contamination around the Undergraduate Building. The main building is surrounded by a plaza paved with concrete squares. The plaza is graded from the north façade over asphalt paving to a catch basins in the parking lot to the north and the driveway to the east. Run-off from the south side of the plaza is directed through scuppers in the retaining wall to the mulched areas south. Grading directs runoff into the turf at the west side of the plaza.

Topography around the wing is graded towards the building. There is a carrying beam that extents five (5) feet from the foundation walls to create a sheltered space below. Steel plates at the drip line prevent runoff from entering in the stone-filled space below the overhand. There is trench drain at the bottom of the stairwell at the basement entrance. The alcove at the south side of the connector to the window walls is filled with stone on top of landscaping fabric. The abundance of PCB-containing caulks on the connector bridge has contributed to soil contamination in the vicinity of the bridge. Soil and hardscape contamination is generally confined to within ten (10) feet of the plaza and limited to the turf at the west side and the mulch and soil at the scuppers.

School of Social Work

Contaminated soil is confined to within approximately fifty-three (53) feet from source materials on the School of Social Work Building. Soils are primarily clay. Sand was used to backfill foundation walls on the east and south sides of the building. PVC drain conduit running from the roof drains at the entrance wing to catch basins at the southeast and north sides of the building was laid over gravel and sand and backfilled with the excavated clay. Mulch and landscape fabric was used to mitigate exposure to PCB in soils on the north, east, and south sides of the building.

Contaminated soil was previously excavated to one (1) foot along the south façade of the building (area 1) and to two (2) feet along the south side of the connector between the main building and the east entrance wing (area 2). Sampling indicated that the further excavation to a depth of two (2) feet will be required in area 1. Excavation to a depth of two (2) feet will be limited to a strip along the foundation wall in Area 2.

Soil excavation to a depth of two (2) feet will be required in the sand/clay backfill along the south and east foundation walls, at the east side retaining wall, and generally around the southern third of the building. A swale is apparent above the roof drain trench to the south of the entrance wing and grading confines stormwater and snow melt within the walkways in the mulched area to the north of the building. Topography and mixed

clay/sand/gravel in the drainage trenches and backfilled areas contributed to extended, localized depths of contamination in these areas. Soil excavation to depth of four (4) feet will be required to remediate the entrance wing roof drain trenches.

Library Building

PCB-containing window, door, and control joint caulks and PCB-containing exterior paint have contaminated soils confined generally within fifteen feet (15) of the building. A depression and ponding obvious approximately forty (40) feet to the northwest of the building has extended the soil contamination to thirty-one (31) feet in that area. Grading is generally level along the east, south, and west sides of the building with the exception of a gentle gradient away from the auditorium walls. Landscapes and hardscapes are generally graded towards catch basins and the building along the north side of the building.

2.2.2 SPLP Sampling Results Summary

Synthetic Precipitation Leaching Procedure (SPLP) samples were collected from locations that exceeded the DEEP Significant Environmental Hazard reporting criteria. None of the samples exceeded the criterion objective of PCB (0.5 ug/L).

SPLP sampling data is summarized on the following tables attached as Table I:

- Table IA: Soil and Hardscape Sampling Summary Table - Undergraduate Building
- Table IB: Soil and Hardscape Sampling Summary Table - School of Social Work Building
- Table IC: Soil and Hardscape Sampling Summary Table - Library Building

SPLP sample locations are presented on the following diagrams included as Diagram 3

- Sheet No SS-1: Undergraduate Building, Soil Sampling Locations Diagram
- Sheet No SS-2: School of Social Work Building, Soil Sampling Locations Diagram
- Sheet No SS-3: Library Building, Soil Sampling Locations Diagram

2.2.3 Catch Basins Sampling Results Summary

Eagle collected sediment samples within catch basins at 1800 Asylum Avenue, West Hartford on December 6 and December 7, 2018 for PCB analysis in accordance with standard methodology. PCBs were detected above the laboratory detection limit in nine (9) of the twenty (20) samples submitted. Three (3) of these were above 1 part per million (CB-7, CB-14 and CB-18). CB-7 is positioned east of the undergraduate building set in the concrete directly in front of the side entrance with an adjacent stairway therefore collecting rainwater and snowmelt from off the building and from surrounding

elevated surfaces. CB-14 and CB-18 are positioned adjacent to the north entrance of the library building fairly close to one another collecting storm water from off the building and from the surrounding slightly elevated surfaces.

- PCBs were detected in three (3) sediment samples above 1 part per million (ppm). These included CB-7 at 1.40 ppm (Aroclor 1260), CB-14 at 2.90 ppm (Aroclor 1254) and CB-18 at 1.10 ppm (Aroclor 1254). CB-7 is located east of the undergraduate building and CB-14 and CB-18 are both located north of the library building.

- Six (6) of the sediment samples detected PCBs above the laboratory detection limit but below 1 part per million. These included CB-1, CB-3, CB-4, CB-11, CB-16 and CB-17. PCBs were not detected in any of the other catch basins sampled

Catch basin sediment sampling locations are represented on Diagram DP-1, Catch Basin Sediment Sampling Location Diagram. Sediment sampling results are summarized in Table III, Catch Basin Sediment Sampling Summary.

2.3 Data Usability Review

Laboratory reports and associated quality control/quality assurance (QA/QC) data were analyzed to evaluate QA/QC parameters and identify discrepancies that might impact the quality or usability of the data. Data that did not meet the quality objectives are summarized in Table V, Data Usability Table.

2.3.1 Laboratory Blanks

Aroclors were ND for all laboratory blanks.

2.3.2 Equipment Blanks

The laboratory reported ND (<0.5 ug/L) for each of the submitted equipment blanks.

2.3.3 Laboratory Control Samples and Duplicates

Surrogate and Aroclor spike RPDs were outside of the control values for many of the laboratory control samples and laboratory control sample duplicates. Field sample data was reviewed and where field sample results were reported between 0.750 ppm and 1.0 ppm, the impact of the variability introduced by the elevated RPD was evaluated. The affected field samples generally fell into two categories. They were within and area designated for either remediation of for verification sampling. The rational for data usability or rejection is presented on Table IV for each affected sample.

2.3.4 Field Duplicates and Interlaboratory Control Samples

The RPDs for the field sample duplicates and field sample interlaboratory control samples are presented on Table VI.

2.4 Scope of Work and Verification Sampling

A summary of the project Scope of Work including estimated quantities and waste disposition of soils hardscapes, drainage components, and sediments identified at the site is presented in Table IV. Proposed verification sampling frequencies are also included in Table IV.

SECTION 3 – REMEDIATION ACTION PLAN

The work described in this Self Implementing Clean-Up and Disposal Plan (SIP) shall meet the objectives identified in Part 1.3, Project Objectives, in accordance with 40 CFR Part 761. The remediation work shall be performed to ensure compliance with EPA Toxic Substance Control Act (TSCA) and the State of Connecticut DEEP requirements, and protect occupational and public health and the environment. Materials classified as and PCB Remediation Waste shall be properly removed and disposed of in compliance with federal and state regulatory requirements.

Remediation activities to be performed by the Remediation Contractor (the Contractor) shall include the following:

1. Health and Safety in accordance with Occupation Safety and Health Administration (OSHA) requirements;

2. Remediation of the PCB-containing source materials, substrate materials, and soils summarized in Table III (Appendix C)

3. Recordkeeping and distribution as required in accordance with §761.125(c)(5).

Remediation activities to be performed by others shall include the following:

1. Monitoring remediation activities as Owner's representative shall be performed by Eagle Environmental, Inc.

2. Collection of verification samples in accordance with §761 Subpart O for PCB analysis shall be performed by Eagle Environmental, Inc. as summarized in Table IV (Appendix D).

PCB Remediation Waste greater than or equal to fifty (50) ppm will be removed and transported off-site for disposal at a permitted hazardous waste landfill which is a TSCA-approved disposal facility or a RCRA Hazardous Waste Landfill.

PCB Bulk Product Waste will be transported to and disposed of in a state-approved non-hazardous solid waste landfill.

PCB Remediation Waste less than fifty (50) ppm will be transported to and disposed of in a state-approved non-hazardous solid waste landfill.

PCB-containing liquid wastes generated as a result of PCB remediation or equipment decontamination will be disposed of, treated, or incinerated in accordance with §761.60 and §761.79.

3.1 Site Preparation and Controls

Prior to initiating PCB remediation, the following site controls shall be implemented:

1. The Remediation Contractor shall prepare and submit to the Owner a Work Plan, a Disposal Plan, and a Health & Safety Plan (HASP) specific to the site and work activities to be performed.

2. All workers shall follow applicable federal and state regulation with regard to work activities, including but not limited to OSHA regulations including training, personal protection and respiratory protection requirements.

3. Work zones shall be established to include an abatement zone, a decontamination zone, and a support zone. Work areas shall be secured in the following ways:

   a) The entire site will be isolated from the pubic with secured chain link fencing;

   b) Approaches to remediation work zones within the chain link fences shall be restricted with a secondary barrier consisting of chain-link or construction fencing and properly posted with signage;

   c) Appropriate PCB waste containers shall be placed adjacent to abatement zones. Containers will be, lined, covered, and secured. All waste containers will be appropriately marked with the M_L mark in accordance with §761.40(a)(1) & §761.45(a).

3.2 Remediation Procedures

The following removal procedures shall be utilized to conduct PCB remediation. To ensure that remediation work will not contaminate adjacent areas at the site, ground protection consisting of tarps and/or hard barriers (i.e. plywood) will be used to protect soils and hard-scapes, wind screens and erosion controls will be placed as required by environmental conditions;

1. Heavy equipment (i.e. excavators, loaders, trucks, etc.) will at no time be allowed to directly contact contaminated soils or hard-scapes. Steel plates, impervious sheeting, clean fill, etc. may be used to isolate equipment form contact with contaminated surfaces. Where contact of light equipment (i.e. bobcats, skidsteers. etc.) is unavoidable, the equipment shall be decontaminated using the procedures laid forth in Subpart S.

2. Waste processing areas (i.e. waste packaging and processing areas, concrete breaking areas, etc) will be staged to prevent contaminant migration to "clean areas".

3. Transfer, handling, and transport of wastes will be minimized to the extent possible;

4. Work will be performed using appropriate engineering controls including misting to prevent exposure from the work and migration of contaminants. Under no circumstances will evidence of free liquid water or pooling within the waste stream be tolerated;

5. All debris generated during operations including but not limited to visible dust and debris shall be HEPA vacuumed continuously throughout the work shift and at the end of the work shift to avoid accumulation. Any tears or rips that occur in ground coverings shall be repaired or removed and replaced with new protections;

6. Liquid Wastes generated as a result of the PCB remediation and equipment decontamination shall be profiled by the Contractor and if characterized as TSCA-regulated waste, they shall be burned in a high temperature incinerator or managed (treated) in accordance with §761.60 and §761.79.

3.2.1 Cleanup of PCB Remediation Wastes

PCB Remediation Wastes greater than or equal to fifty (50) ppm in a TSCA-approved disposal facility or a RCRA Hazardous Waste Landfill that accepts regulated asbestos where applicable.

PCB Remediation Waste less than fifty (50) in a State permitted, licensed, or registered solid waste landfill.

Once removed, contaminated materials shall be placed directly into lined-designated containers.

Long term stockpiling of Remediation Wastes will not be allowed. Where short term stock piling is necessary, awaiting testing results, the waste shall be stored on impervious tarps, secured and bermed to prevent migration in the event of acclimate weather.

Containers shall not be emptied into other containers to avoid dispersal of dust or fugitive emissions. No dry sweeping, dusting, or blowing shall be allowed.

All PCB Remediation Waste shall be stored for disposal in accordance with §761.65. All waste containers shall be appropriately labeled in accordance with §761.40 & §761.45.

3.3 Air Monitoring During Remediation

During excavation and waste management, particulate and PCB air monitoring will be performed at the four cardinal directional locations on the fence line, which will isolate the demolition and abatement/remediation area. The air sampling will be performed during all active demolition, waste management and final cleaning operations. The air monitoring will be performed to evaluate efficacy of engineering controls and work practices as well as evaluate the potential impacts to adjacent receptors. Corrective actions will be implemented when air monitoring data exceeds applicable action levels established for the project.

3.3.1 Particulate Monitoring

The main dust control mechanism to be employed on the project will be the use of engineering controls (e.g. wetting the building prior to and during demolition) and observance of weather-related impacts such as high winds that may have the ability to disperse dust or particulate matter from the abatement zone. Demolition and remediation will be required to be ceased when wind conditions are such that prevent the control of dust emissions and particulate matter from being controlled inside the abatement zone.

Particulate air monitoring will be conducted at the perimeter of the active demolition/abatement zone during all active demolition and waste management. Particulate air monitoring will determine if fugitive dust particles are present in the ambient air at the perimeter during active removal activities. A Real Time Area Aerosol Monitor (TSI DUSTTRAK Model 8530 or equivalent) fitted with a PM 10 filter or impactor will be used to perform background air sampling outside of the abatement zones while demolition and remediation work is performed to monitor the concentration of airborne particulate. The instrument will be programmed to collect readings every five minutes and compute an overall daily average. Four (4) air monitoring stations will be established on

daily basis at the cardinal directional locations around the building. The air monitoring stations shall be established along the fence lines between the abatement zone and support zone.

Baseline averages will be established on a daily basis by measuring the concentrations in adjacent but unaffected areas at the Site (up wind locations or other areas of the Site not affected by the work). The baseline average will serve as the action level for determining the need for immediate corrective actions. The National Ambient Air Quality Standard (NAAQS) Particulate Matter (PM) 10 standard of 150 ug/m^3 will be the minimum action level for the project. The daily action level will be established by collecting real-time background ambient air monitoring at the Site at the start of each shift and periodically throughout the course of the sampling period. If a spike exceeding the target value is observed for any given five (5) minute timeframe (or more), then the cause of the spike will be investigated, determined, and corrected. Should a spike occur for more than one five (5) minute period at a single air monitoring station, the PCB air sample collected adjacent to that station will be submitted for analysis.

If visible dust is observed for greater than one (1) minute or if total particulate concentrations at the perimeter exceed the action level and are sustained for greater than one five (5) minute sampling period, then a temporary work stoppage will be initiated to employ additional dust suppression measures to mitigate fugitive dust. In the event that the total of airborne particulate cannot be maintained below the action level, a work stoppage shall be implemented until sustained readings are below the action level and the cause of the spike is determined.

3.3.2 Corrective Actions

Corrective actions shall be implemented in the event of a spike at any one or more air monitoring station(s) during the course of work. Corrective actions will be implemented to reduce fugitive dust at the work Site, modify work practices that are generating fugitive dust, implement additional on-site awareness to work force for controlling fugitive dust and protect the human environment from controllable PCB contamination. All corrective actions shall be documented on the Corrective Action Form. The following corrective actions shall be taken in the event a spike is recorded at an air monitoring station(s):

- Notify the contractor of spike and implement work stoppage.
- Immediately implement additional wetting and misting of the area.
- Review demolition and remediation activities to evaluate potential cause of spike.
- Perform remedial cleaning of work area in vicinity of the air monitoring station(s) that recorded the spike(s).
- Remove accumulated debris from problematic areas, and/or cover, enclose, or isolate dust-generating areas/surfaces to shield them from wind, sunlight, or heat sources.
- Increase frequency, volume, and/or coverage of water misting, sprays, and foggers.

- Modify work practices as necessary to eliminate problematic conditions.
- Increase level of worker awareness and instruct them on implementation of any new or modified operating procedures.
- Document all procedural modifications and results.
- Perform routine audits of dust suppression methods and work areas for dust sources.

3.3.3 PCB Air Monitoring

The sampling method of collecting and analyzing air samples for PCBs is specific to the concern of the unintentional release of PCB containing material to the environment during the execution of the work. PCB air samples shall be collected adjacent to each air aerosol particulate air monitor. PCB air samples shall be collected and analyzed utilizing the NIOSH 5300 Method. Battery operated pumps shall be pre-calibrated at the start of each sampling event. The pumps shall be calibrated with an inline Florisil tube and Swinnex cassette attached with flexible tubing to the pump. Pumps shall be calibrated between 0.05 and 0.2 L/min for a total sample volume of 1 to 50 L. The pumps shall be checked periodically throughout the sampling period to confirm proper operation.

The data collected from the aerosol monitors shall be reviewed at the end of each shift to determine if the action level has been exceeded at one or more of the monitoring stations. In the event the action level is exceeded at one or more of the monitoring stations, the corresponding PCB air sample will be submitted for laboratory analysis.

PCB analysis of air samples will be performed utilizing the NIOSH 5503 Method by an accredited and certified analyst. Samples will be analyzed by a state of Connecticut licensed laboratory. Results will be reported in micrograms per cubic meter (µg/m3) of air sampled. Results will be compared to the action levels listed in Table 1 in Section 9.0 below.

3.3.4 Location of Air Monitoring Stations and Wind Direction

Air monitoring stations shall be established at the four cardinal directional locations of North, South, East and West. A Site plan identifying the cardinal directional locations in relationship to the building is attached as Figure 1. Air monitoring data sheets have been developed to record air monitoring data locations, wind direction and weather conditions for each day of sampling. The air monitoring stations shall be set up on the fence line between the abatement zone and support zone. Air monitoring stations may be relocated as necessary to ensure a worse case upwind sample is collected. Data collected on the aerosol monitors will be downloaded at least weekly and the data preserved for the final report.

The Action Levels and Response Actions for aerosol monitoring and PCB air monitoring are as follows:

Aerosol Monitor Concentrations	Response Action
Less than the minimum Action Level (<150 ug/m3) or daily adjusted Action Level	Continue work practices and engineering controls and ongoing perimeter air monitoring

Aerosol Monitor Concentrations	Response Action
Greater than the minimum Action Level (>150 ug/m3) or daily adjusted Action Level	Implement work stoppage and proceed with corrective actions
PCB Air Monitoring Concentrations	**Response Action**
<0.025 μ/m^3 of PCB	Continue work practices and engineering controls and ongoing perimeter air monitoring
>0.025 μ/m^3 to 0.050 μ/m^3 of PCB	Notify contractor and review work practices and engineering controls. Implement additional dust suppression activities.
>0.050 μ/m^3 of PCB	Cease work activities. Revise work practices to more effectively control emissions.

Note: Since the NIOSH 5300 PCB air samples will be analyzed by an outside laboratory, it may be up to 48 hours before results are received by the consultant. Response actions will be carried out based on real-time aerosol results at the time of the spike. The PCB air sample results will confirm the presence or absence of PCB's in the emission at the time of the prior spike. Appropriate response actions will be implemented regardless of the timing on the receipt of sample results.

3.4 Post-Remediation Verification Sampling

Following the completion of the removal of PCB Bulk Product Waste, PCB Remediation Waste, and CT Regulated PCB Waste, Eagle will implement the following sampling verification plan in accordance with the protocols laid forth in §761.61(a)(6) and Subpart O.

3.4.1 Visual Inspection

Upon completion of work in each area, a visual inspection of all remediated surfaces for visible evidence of suspect debris shall be performed. Surfaces shall also be inspected for visible PCB source and substrate materials debris. The visual inspection shall provide in a preliminary way, verification that remediation work has been completed in accordance with this Plan. Measurements of remediation areas will be obtained to assure that specified soils have been excavated.

Surfaces of protective coverings and isolation barriers shall be inspected to ensure they are free of dust or debris. No verification sampling shall be performed until the visual inspection is complete and the clearance criteria satisfied.

3.4.2 Verification Sampling

Verification bulk sampling will be conducted in areas where PCB Remediation Wastes were remediated including soil excavation areas, remaining hardscapes, and underneath remediated hardscapes in accordance with the protocols set forth in §761 Subpart O. Samples will be analyzed at Phoenix Environmental Laboratories, Inc. located in Manchester Connecticut. PCB will be extracted from samples using USEPA Extraction Method 3540C and analyzed using EPA method SW846 8082.

The criteria for successful verification of soils, hardscapes, and drainage conduit shall be one (1) ppm PCB or less. If any location exceeds this clearance objective, the owner's consultant will discuss additional remedial actions for additional removal and disposal of materials.

If Subpart R TCLP sampling is conducted on wastes generated from demolition, then the criteria for successful clearance will be less than ten (10) micrograms per liter of leachate. If the bulk waste fails the clearance criteria, it will be designated for disposal in an appropriate landfill.
Costs associated with Subpart R testing and profiling of wastes generated by the Contractor such as decontamination fluids, PPE, protective barriers, etc. shall be borne exclusively by the Contractor.

Please refer to Sheet Nos VS-1, VS-2, and VS-3 attached as Diagram 7 and Table IV (Scope of Work and Verification Sampling Summary Table) for the estimated quantities, locations, and frequencies of bulk verification samples.

SECTION 4: SCHEDULE AND PLAN CERTIFICATION

It is the intent of the Owner, the Fintech Village, LLC, to begin the removal of PCB Bulk Product Waste, PCB Remediation Waste, CT Regulated PCB Waste, and the cleaning of substrate materials upon EPA approval of this Self Implementing Clean-Up and Disposal Plan and contract procurement. The project is currently out to bid. Adjustments to the Contractors scope of work shall be made according to USEPA and DEEP comments as necessary.

Upon completing the PCB Remediation and Verification Sampling confirming that the Project Objectives have been met, the renovation/construction work shall commence.

The Owner hereby certifies that all the sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site, are on file with the Owner and are available for EPA inspection.

Owner: Fintech Village, LLC
Name: Alf Poor
Title: Chief Executive Officer

May 1, 2019
Date

Consultant: Eagle Environmental, Inc.
Name: Peter J Folino
Title: Principal

MAY 1, 2019
Date

Remediation Contactor
(to be determined)

Date

This plan was prepared to support applications under the Code of Federal regulations Title 40 Section 761.61(a)(3)(E) for EPA approval of self-implementing on-site clean up and disposal of specified porous materials and soils impacted by specified non-liquid PCB-containing caulks, and glazing compounds. Decontamination sampling procedures and post abatement acceptance criteria will be based on post abatement visual inspections, applicable confirmatory verification bulk samples, and waste disposal documentation.